

### **REMARKS**

In response to the Office Communication mailed July 22, 2010, Applicants submit the foregoing claims and the following remarks. Claims 18-21, 31-39 are currently pending. Claims 22-30, and claim 40 have been cancelled, without prejudice, and with the reservation that the same subject matter may be submitted in one or more copending applications claiming priority from this or one or more related applications, in response to the Restriction Requirement and Constructive Election of Claims 18-21, 31-39 noted in the Office Action.

Claims 18-21, 31-32, 34-39 are currently amended for clarity as noted below. The amendments reflected in the currently pending claims introduce no new matter.

Claims 18-20 have been amended to recite “an extendable shield;” support therefore can be found in Bernard, (extending shield 326 or shield 326), para [115], and Figures 9B, 11D, and 12 (shield 326), at least. Applicants do not intend to limit the claim with this amendment.

Claims 31, 34 and 36 have been amended to recite “a controlled source of energy sufficient to transfer a predetermined amount of the therapeutic agent;” support therefore can be found in Bernard, paras [008], [0033] – [0034], [0045]-[0047], [0062] – [0075], [0086] – [0094], and [0132] at least. Applicants do not intend to limit the claim with this amendment.

Claims 34 and 35 have been amended, support for “control system” can be found in Bernard, paras [0108]- [0109], [0117], at least. Applicants do not intend to limit the claim with this amendment.

Claims 36, 37, 38, and 39 have been amended, support for “main unit” can be found in Bernard, paras [0111]- [0117], and in Figs. 8, 9, 10, 11, and 12, at least. Applicants do not intend to limit the claim with this amendment.

Claims 18, 21, 31, 32, 34, and 36-39 have been amended for clarity, support for ‘an electrical signal generator’ can be found throughout Bernard, in reference to ESA (Electrical Signal Application), in reference to an electrical signal generating means and/or a means for electrical signal generation (both synonymous), and in particular in paras [0083], and [0103], and in Fig. 7 item 216, at least. Applicants do not intend to limit the claim with this amendment.

Claim 36 has been amended for clarity, support for “which detachable subassembly is detachable relative to the administration subassembly” can be found, for example, in Fig. 6 and descriptions therefore. Applicants do not intend to limit the claim with this amendment.

In view of the following remarks, Applicants respectfully request favorable consideration of Claims 18-21, 31-39 presented herein.

### **Specification Objection**

The specification was objected to as allegedly failing to provide proper antecedent basis for the claimed subject matter under 37 CFR 1.75(d)(1) and MPEP Section 608.01 (o). The Office Action identified several items claimed which allegedly were not identified in the specification, as the Examiner indicated that the Applicants had invoked means plus function language for each of these items. Arguments herein are based on the amended claims, and thus only the terms objected to in the Office Action which remain in the amended claims are addressed, as all other objections are rendered moot. Applicants do not intend to limit the claims with these amendments.

Regarding the term “means for administration of the therapeutic agent” Applicants respectfully disagree that this item is not identified in the specification. The term “means for administration of the therapeutic agent” or abbreviations therefore are used throughout the specification. Specifically, the term is first identified in para [0033] of 2005/0215941 (“Bernard”), which identifies that the “means for administration of the therapeutic agent” in certain embodiments is made up of elements such as the reservoir, orifice, and a controlled source of energy sufficient to transfer a predetermined rate from the reservoir through the orifice to the patient, at least. Additionally, in Bernard para [0034], the “means for administration of the therapeutic agent” is described as Controlled Therapeutic Agent Administration (CTAA). Thus, as used in the specification, the means for controlled administration of the therapeutic agent, or CTAA, is synonymous with “means for administration of the therapeutic agent” to describe this item in embodiments of the invention. (See Bernard para [0034]). Para [0034] further identifies various methods and apparatuses capable of providing spatial and temporal control over administration of a therapeutic agent relative to the induction of an EMTAD effect, (i.e. CTAA). Moreover, specific CTAA Apparatus embodiments are described in detail in Bernard paras [0064] through [0075], the section titled “CTAA Apparatus Embodiments”. For example, para [0065] states “... as depicted in FIG. 2, in certain embodiments an automatic injection apparatus 10 is utilized as the means of controlled administration of therapeutic agents to the target tissue.” Also in the CTAA Apparatus Embodiments section, para [0072] a jet injector such as that depicted in FIGs. 3 and 4, is used as the

“means for CTAA” to the target tissue. Thus, the “means for administration of the therapeutic agent” is identified as the structures noted in the above-mentioned sections, at least, and in the Figures noted in the specification.

**Claim Rejection - 35 U.S.C. §112**

Claims 34-35 were rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. The Office Action states that “Applicant’s recitation of a control means with a predetermined timing relationship between the administration of the agent and the application of the electric field is not found in the specification. Applicant’s triggering mechanism with respect to figures 8-12 appear to initiate needle insertion and plunger movement, however, the electric field generation appears to be manual.” This rejection is traversed for at least the following reasons:

As amended, Claim 34 requires “a control system configured to provide a pre-determined temporal relationship between the administration of the agent and generation of the electrical field”, which control system can be found in Bernard, paras. [0108]- [0117], at least. In these paragraphs, at least, an integrated controlled apparatus is described that is activated by the operator and which thereby automatically administers the agent and the electrical signal according to a predetermined sequence of delivery timing, at least. There is an entire section of the specification dedicated to an apparatus having temporal control and coordination of the agent administration and the electrical field administration (Bernard, paras. [0041] – [0049]), not to mention examples and discussion which identify this coordination as an aspect of certain embodiments of the apparatus. Figure 6 specifically shows a control system 224 (described and identified in para [0108], at least), and although not labeled specifically therein, other Figures, (Figs. 8, 10, and 11), show devices which may incorporate such a control system, as they are described as having “an operator activation trigger 22 on the main unit 306 [that] sends a signal to the control system to initiate the treatment sequence.” Bernard, para [0117]. Thus, as amended, the subject matter in Claims 34 and 35 (dependent therefrom) is clearly described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Withdrawal of this rejection basis is respectfully requested.

Claims 18-40 were rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Withdrawal of this rejection basis is respectfully requested based on the amendments to the claims, and based on the above discussion with respect to the specification objection.

#### **Claim Rejection - 35 U.S.C. §102**

Claims 21, 31 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Hofmann (USPN 5,318,514) ("514"). This rejection is traversed for at least the following reasons:

The cited Hofmann reference ('514) fails to disclose or suggest all of the elements of the claimed apparatus of Claim 21. Similarly, the '514 reference fails to disclose or suggest all of the elements of the claimed apparatus of Claim 31. Both Claims 21 and 31 require a "controlled source of energy sufficient to transfer a predetermined amount of the therapeutic agent from said reservoir through said orifice to the predetermined site within the tissue of the patient." On the contrary, '514 discloses a source of energy that feeds the agent through an orifice to the foam elastomer of the electroporation device. First, the sufficiency of the energy of '514 to achieve transferring the agent within tissue of the subject is not disclosed, since the energy is only described as sufficient to "deliver a suitable quantity of the fluid medium to the foam elastomer" ('514, Col. 2, line 58). Second, the '514 source of energy does not transfer the agent within tissue of the patient, and only delivers the agent to the foam elastomer (id.). Moreover, in '514, the device is placed on the "surface" tissue region (skin or surface of organ). ('514, Col. 2 line 61-63). Thus, '514 fails to disclose "a first controlled source of energy sufficient to transfer a predetermined amount of the therapeutic agent from said reservoir through said orifice to the predetermined site within the tissue of the patient." For this reason, at least, Applicants respectfully request that the rejection of Claims 21 and 31 over Hofmann, '514, be withdrawn.

Claims 37-39 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Hofmann (USPN 6,208,893) ('893). This rejection is traversed for at least the following reasons:

Claim 37 as amended is directed to an apparatus for the delivery of a therapeutic agent to cells which comprises, *inter alia*, “a main unit comprising a user-activated trigger and operative connections for said electrode subassembly, said fluid reservoir, and said injection needle wherein activation of said trigger initiates electrode and orifice insertion within the tissue, wherein said injection orifice is positioned within the region of tissue bounded by said plurality of penetrating electrodes.” Applicants assert that the cited ‘893 reference fails to disclose or suggest a user-activated trigger and operative connections for said electrode subassembly, said fluid reservoir, and said injection needle wherein activation of said trigger initiates electrode and orifice insertion within the tissue, wherein said injection orifice is positioned within the region of tissue bounded by said plurality of penetrating electrodes, as recited in Claim 37.

Claim 38 as amended is directed to an apparatus for the delivery of a therapeutic agent to cells which comprises, *inter alia*, “a main unit comprising a user-activated trigger and operative connections for said administration subassembly and said electrodes wherein said main unit comprises an automated mechanism configured to transition said injection needle and said electrodes from a retracted state within said main unit to a deployed state within the tissue of a patient following activation of said trigger.” As discussed with regard to Claim 37, there is no trigger disclosed or suggested in the ‘893 reference. Moreover, there is not disclosed or suggested in ‘893 “an automated mechanism configured to transition said injection needle and said electrodes from a retracted state within said main unit to a deployed state within the tissue of a patient following activation of said trigger.” In Fig. 26 of ‘893, a catheter is provided that has a disk (190) at the proximal end of the catheter for manually “extending and retracting the needles from the end of the catheter.” Neither is the actuator plate (176), alone or in combination with disk (190) configured for the automated function required in Claim 38, as the actuator plate (176) of ‘893 simply *facilitates* movement of the electrodes within the catheter.

Claim 39 as amended is directed to an apparatus for the delivery of a therapeutic agent to cells which comprises, *inter alia*, “a main unit comprising a user-activated trigger and operative connections for said administration subassembly wherein said main unit comprises an automated mechanism configured to transition said injection needle and said penetrating electrode from a retracted state within said main unit to a deployed state within the tissue of a patient following activation of said trigger.” As discussed with regard to Claims 37 and 38 there is no trigger

disclosed or suggested in the '893 reference. Moreover, using the same reasoning as stated above with regard to Claim 38, there is not disclosed or suggested in '893 "an automated mechanism configured to transition said injection needle and said penetrating electrode from a retracted state within said main unit to a deployed state within the tissue of a patient following activation of said trigger."

For these reasons, at least, Applicants respectfully request that the rejection of Claims 37, 38, and 39 over Hofmann, '893, be withdrawn.

### **Claim Rejection - 35 U.S.C. §103**

Applicants respectfully point out that when determining whether a claim is obvious, the Examiner must make "a searching comparison of the claimed invention – including all its limitations – with the teaching of the prior art." In re Ochiai, 71 F.3d 1565, 1572 (Fed. Cir. 1995). Thus, "obviousness requires a suggestion of all limitations in a claim." CFMT, Inc. v. Yieldup Intern. Corp., 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing In re Royka, 490 F.2d 981, 985 (CCPA 1974)).

Claim 36 was rejected under 35 U.S.C. 102(b) as allegedly anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hofmann (USPN 6,241,701), alone or obvious in view of Hofmann (USPN 5,688,233 or 6,009,347). Rejection of Claim 36 is traversed for at least the following reasons:

Claim 36 as amended is directed to an apparatus assembly for the delivery of a therapeutic agent to cells, requiring an injection needle and, separately, a plurality of penetrating electrodes. All of the "needles" of Hofmann '701 are needle electrodes. While there are disclosed in '701 some electrodes which are not needles, there are no injection needles which are not electrodes disclosed or suggested. Thus, while the Office Action fails to specifically identify these elements in any of the references, as best understood by Applicants, the Office Action identifies a "needle" as disclosed in the '701 reference as both the required Claim 36 "injection needle" and a "penetrating electrode." This conflates two elements each of which is a separate required element in Claim 36, and each of which has a specific configuration relative to each other and to the other elements in the claim as stated in the claim, which is not disclosed or suggested in '701. Neither is this deficiency cured by

either of the references Hofmann '233 or Hofmann '347. Each of these references discloses and suggests needle electrodes delivering therapeutic agents. Thus, an injection needle separate from a plurality of penetrating electrodes in the claimed configuration is not disclosed or suggested by any of the Hofmann '701, '233, or '347 references either alone or in combination.

Moreover, even if, *arguendo*, there were separate injection needles and electrodes disclosed in '701, there is not disclosed or suggested in '701, a detachable electrode subassembly that is "detachable relative to the administration subassembly", wherein the administration subassembly comprises an injection needle with at least one injection orifice, at least. The '701 reference discloses a detachable electrode assembly, but if the injection needle were part of the electrode assembly of '701—either where needle were also an electrode, or an injection needle were separate from the electrode but still part of the disclosed and suggested '701 design, this would not disclose or suggest the configuration of elements claimed in Claim 36, which requires a detachable electrode subassembly that is detachable relative to the administration subassembly. Again, the cited references Hofmann '233 or Hofmann '347 do not cure the deficiencies of Hofmann '701. None of the cited Hofmann references whether taken alone or in combination disclose or suggest "a detachable electrode subassembly" that is "detachable relative to the administration subassembly."

For these reasons, at least, Applicants respectfully request that the rejection of Claim 36 over Hofmann, '701, alone or in view of Hofmann '233 or '347, be withdrawn.

Claims 34-35 were rejected under 35 U.S.C. 102(e) as allegedly anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Dimmer et al. (USPN 6,678,558). This rejection is traversed for at least the following reasons:

Claim 34 as amended is directed to an apparatus assembly for the delivery of a therapeutic agent to cells, requiring "a control system configured to provide a pre-determined temporal relationship between the administration of the agent and generation of the electrical field." Applicants disagree that Dimmer '558 discloses such a control system. Applicants also disagree that Applicants' control system is manual once activated by a user, as is stated in the Office Action. Rather, the control system disclosed is a system that is "configured to provide a pre-determined temporal relationship between the administration of the agent and generation of the electrical field," as is described throughout Raji '941 when describing an integrated apparatus, and in particular in

Raji '941 in para [0108] et seq. On the other hand, Dimmer '558 discloses what is generally done in electroporation applications, administration of the composition in uncontrolled manner, at some variable and uncontrolled time during, before, after, or between pulses without the control system of Claim 34. There is no disclosure or suggestion of a control system such as is claimed in Claim 34 which is "configured to provide a pre-determined temporal relationship between the administration of the agent and generation of the electrical field." Thus, Applicants assert that Dimmer '558 does not, either alone or in combination with any of the Hofmann references, disclose or suggest all of the elements of the claimed apparatus for the delivery of a therapeutic agent recited in Claims 34.

Since Claim 35 is dependent from Claim 34, Claim 35 is not obvious for at least the same reasons as those stated regarding Claim 34. Moreover, the user activated trigger of Claim 35 is not disclosed or suggested in Dimmer '558, or any of the Hofmann references whether considered alone or in combination. The remote controller, or foot pedal of Dimmer '558 (see Col. 6 lines 17-37) is described as activating the electroporation instrument and other functions of the electroporation instrument (which is the electronics of the electroporation device), but does not "[initiate] electrode and orifice insertion, agent administration, and electrical field application, all according to a predetermined timing and sequence" which is required in Claim 35. Thus, Applicants assert that Dimmer '558 does not, either alone or in combination with any of the Hofmann references, disclose or suggest all of the elements of the claimed apparatus for the delivery of a therapeutic agent recited in Claims 35.

For these reasons, at least, Applicants respectfully request that the rejection of Claims 34-35 over Dimmer, '558, alone or in view of any of the Hofmann references cited herein, be withdrawn.

Claims 18 and 20 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Hofmann 6,208,893 in view of US classification system for class 604, Bernabei 6,748,266 or Hofmann 5,688,233. Claims 19 was rejected under 35 U.S.C 103(a) as allegedly being unpatentable over Hofmann (USPN 6,208,893) in view of the US classification system for class 604, Bernabei USPN 6,748,266 or Hofmann 5,688,233 as applied to claims 18 and 20, and further in view of Rosengart et al. USPN 5,846,225. These rejections are traversed for at least the following reasons:

Claim 18 as amended is directed to an apparatus for the delivery of a therapeutic agent to a predetermined site within a patient, requiring "a plurality of penetrating electrodes arranged with a



predetermined spatial relationship relative to said orifice.” Furthermore, Claim 18 requires “an extendable shield for shielding either the agent orifice or the electrodes from a user of the apparatus when the orifice or the electrodes are not in contact with the patient.”

Applicants assert that cited reference Hofmann ‘893 (US 6,208,893) is silent with regard to disclosing or suggesting at least the claimed element of a plurality of penetrating electrodes arranged with a predetermined spatial relationship relative to the orifice of said apparatus as recited in Claim 20. Applicant respectfully provides that the spatial relationship as recited in Claim 18 refers to the spatial relationship between the electrodes and the therapeutic agent to enhance the delivery of a therapeutic agent via the claimed apparatus. See, for example, paras [0037-0039], [0046] and [0096]. To the contrary, Hofmann ‘893 is silent with regard to the spatial relationship between the electrodes and the therapeutic agent but, as noted by the Examiner discloses “electrode spacing can be adjusted by the means (plate) with selectable holes for positioning. In addition, the embodiments also allow selection of pairs which will have different spacing from the orifice member.” Thus, Applicants assert that Hofmann ‘893 does not disclose or suggest all of the elements of the claimed apparatus for the delivery of a therapeutic agent recited in Claim 18. Moreover, the teachings of US classification system for class 604, Bernabei ‘266, or Hofmann ‘233 do not cure the deficiencies of Hofmann ‘893. Neither do the teachings of Rosengart ‘225 cure the deficiencies of Hofmann ‘893.

Furthermore Applicants respectfully point out that Hofmann ‘893 also fails to disclose or suggest “an extendable shield for shielding either the agent orifice or the electrodes from a user of the apparatus when the orifice or the electrodes are not in contact with the patient” as required by instant Claim 18. In particular, the neither of the elements that the Office characterizes with regard to Hofmann ‘893 as a “cover member 162 or 146 (Figure 16)” is a protective shield configured to extend over said the electrodes when the orifice or the electrodes are not in contact with the patient as required by instant Claim 18. See, Hofmann ‘893, Col. 14, lines 10-14, Figure 24 (element 162). See, Hofmann ‘893, Col. 13 lines 54 et seq. and Fig. 21 (element 146). Rather, 162 is a “flexible catheter member” and element 146 is described as an “elongated central support member” having the needles mounted thereon. According to Hofmann ‘893, “an elongated flexible catheter member 162 is fitted at a distal end with a template 164) having a plurality of through-sockets with sliding connectors 166, 168, 170 and 172.” *Id.* From the drawings in Figure 24, it is apparent that the “flexible catheter member 162” is not extendable; rather it is the electrodes that extend into tissue.

Furthermore, from the drawings in Figure 21, it is apparent that the “elongated central support member 146” is not extendable, nor is it a cover whatsoever for shielding the agent orifice or the electrodes from a user when the orifice or the electrodes are not in contact with the patient; in Hofmann ‘893, the electrodes extend into tissue and the support member 146 provides no protection to the user from the electrodes or the orifice as an extendable shield. Thus, Applicants assert that Hofmann ‘893 does not disclose or suggest all of the elements of the claimed apparatus for the delivery of a therapeutic agent recited in Claim 18, as ‘893 does not disclose or suggest “an extendable shield for shielding either the agent orifice or the electrodes from a user of the apparatus when the orifice or the electrodes are not in contact with the patient.” Again, the teachings of US classification system for class 604, Bernabei ‘266, or Hofmann ‘233 do not cure the deficiencies of Hofmann ‘893.

For the reasons set forth *supra*, Applicants assert that Hofmann ‘893 in view of US classification system for class 604, Bernabei ‘266, or Hofmann ‘233 do not, either alone or in combination, disclose or suggest all of the elements of the claimed apparatus for the delivery of a therapeutic agent recited in Claim 18 or Claim 20 (dependent therefrom). Also for the reasons set forth *supra*, Applicants assert that Hofmann ‘893 in view of US classification system for class 604, Bernabei ‘266, or Hofmann ‘233, and further in view of Rosengart ‘225 do not, either alone or in combination, disclose or suggest all of the elements of the claimed apparatus for the delivery of a therapeutic agent recited in Claim 18 or Claim 19 (dependent therefrom). Applicants respectfully request that the rejections of Claims 18, 19, and 20 over Hofmann, ‘893, alone or in view of US classification system for class 604, Bernabei ‘266, Hofmann ‘233, or Rosengart ‘225 be withdrawn.

Claims 32 and 33 were also rejected under 35 U.S.C 103(a) as allegedly being unpatentable over Hofmann (USPN 6,208,893) in view of the US classification system for class 604, Bernabei USPN 6,748,266 or Hofmann 5,688,233 as applied to claims 18 and 20, and further in view of Rosengart et al. USPN 5,846,225. This rejection is traversed for at least the following reasons:

Claim 32, and claim 33 which depends therefrom, is directed to an apparatus for the delivery of a therapeutic agent to cells which comprises, *inter alia*, “a plurality of penetrating electrodes operatively connected to a second controlled source of energy sufficient to deploy the electrodes to a predetermined depth within the patient.” Applicants assert that cited reference Hofmann ‘893 is

silent with regard to disclosing or suggesting this element, at least. The teachings of US classification system for class 604, Bernabei '266, or Hofmann '233 do not cure the deficiencies of Hofmann '893. Neither do the teachings of Rosengart '225 cure the deficiencies of Hofmann '893.

The Office Action cites Rosengart for showing "a needle guard 16 but additionally includes energy sources in the form of springs 24 for automatically extending the needle cover ... With regard to claim 32, in modifying Hofmann to include the spring based needle guard, the needles would be operatively coupled to the a second source of energy (needle guard and spring) sufficient to deploy the electrodes to a predetermined depth (similar to applicant's figure 9A)." As best Applicants can understand, the Office Action identifies the source of energy necessary to deploy the electrodes (as claimed) as the spring used in Rosengart's needle cover. On the contrary, mechanically speaking a spring that biases a needle cover over electrodes (thereby acting to keep the electrodes covered), requires a separate source of energy to deploy the electrodes—i.e. energy acting against the spring biasing the needle cover closed. Additionally, while a source of energy may be used in Rosengart to overcome the cover energy, it is an uncontrolled source of energy, as the applicator disclosed in Rosengart is manual. Thus, Applicants assert that cited references US classification system for class 604, Bernabei '266 or Hofmann '233 as applied to Claim 32 and 33 (dependent therefrom), and further in view of Rosengart '225 do not cure the deficiencies of Hofmann '893.

Moreover, as amended, Claim 32, and claim 33 which depends therefrom, requires a "detachable electrode subassembly" which is "detachable relative to the orifice through which the agent is administered." None of Hofmann (USPN 6,208,893) in view of the US classification system for class 604, Bernabei USPN 6,748,266 or Hofmann 5,688,233 as applied to claims 18 and 20, and further in view of Rosengart et al. USPN 5,846,225, whether considered alone or in combination, disclose or suggest such elements and such an arrangement.

Thus, Applicants assert that Hofmann '893 in view of US classification system for class 604, Bernabei '266 or Hofmann '233, and further in view of Rosengart '225 do not do not, either alone or in combination, disclose or suggest all of the elements of the claimed apparatus for the delivery of a therapeutic agent recited in Claims 32-33. Withdrawal of the rejection of Claims 32 and 32 on this basis is respectfully requested.

Claims 32-33 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Hofmann (USPN 6,208,893) in view of the US classification system for class 604, Bernabei (USPN 6,748,266 or Hofmann 5,688,233 and further in view of Haim et al. (USPN 6,254,573). This rejection is traversed for at least the following reasons:

Claim 32, and claim 33 which depends therefrom, is directed to an apparatus for the delivery of a therapeutic agent to cells which comprises, *inter alia*, “a detachable electrode subassembly comprising a plurality of penetrating electrodes operatively connected to a second controlled source of energy sufficient to deploy the electrodes to a predetermined depth within the patient, which detachable subassembly is detachable relative to the orifice through which the agent is administered.” Applicants assert that cited reference Hofmann ‘893 is silent with regard to disclosing or suggesting this element, at least. The teachings of US classification system for class 604, Bernabei ‘266, or Hofmann ‘233 do not cure the deficiencies of Hofmann ‘893. Furthermore, Haim ‘573 does not cure the deficiencies of Hofmann ‘893 in view of US classification system for class 604, Bernabei ‘266 or Hofmann ‘233 with regard to Claims 32-33.

Haim ‘573 describes a system that automatically deploys and retracts a needle. As described in Col. 6, lines 1-32 of Haim, at least, measurements are taken of the heart wall (deployment site), and this measurement is used to gate the release of the drug. Optimization of location of agent administration in Haim is controlled by sensing the changing thickness of the heart wall that occurs as the heart beats, and timing the injection to optimize the location of injection based on this changing thickness. *Id.*

Hofmann ‘893 in view of US classification system for class 604, Bernabei ‘266 or Hofmann ‘233, and further in view of Haim ‘573 do not do not, either alone or in combination, disclose or suggest all of the elements of the claimed apparatus for the delivery of a therapeutic agent recited in Claims 32-33. Claim 32, and Claim 33 which depends therefrom, requires a “detachable electrode subassembly” which is “detachable relative to the orifice through which the agent is administered.” None of Hofmann (USPN 6,208,893) in view of the US classification system for class 604, Bernabei USPN 6,748,266 or Hofmann 5,688,233, and further in view of Haim ‘573, whether considered alone or in combination, disclose or suggest such elements and such an arrangement. Withdrawal of the rejection of Claims 32 and 32 on this basis is respectfully requested.

Claim 32 was rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Haller, 4,198,975 in view of Hofmann (USPN 5,273,525). This rejection is traversed for at least the following reasons:

Applicants assert that Haller '975 in view of Hofmann '525 do not do not, either alone or in combination, disclose or suggest all of the elements of the claimed apparatus for the delivery of a therapeutic agent recited in Claim 32.

Haller '975 describes a system that has a trigger 48 which does two things. When an operator moves the trigger a short distance, a spring loaded syringe 18 is released and penetrates the flesh. (Haller '975 Col. 4 lines 5-23, and Fig. 1, at least.) Mechanically speaking, spring 34 is tensioned by a sear 40 in a notch 44, which spring is released when the trigger 48 is depressed by an operator a first short distance. *Id.* Further depression of the trigger 48 by an operator translates movement of the trigger 18 to movement of a projection 30 that engages the plunger 22 of the syringe 18. Haller '975 Col. 4 lines 63 et seq. The pulley system 60, 64, etc, of Haller '975 is a *distance multiplier*, such that trigger 48 movement by the operator of a short distance translates to a longer distance at the plunger 22. Haller '975 Col. 3 lines 29-31.

Thus, Haller '975 does not disclose or suggest "a first controlled source of energy sufficient to transfer a predetermined amount of the therapeutic agent from said reservoir through said orifice to the predetermined site within the tissue of the patient." As noted above, the pulley system of Haller '975 is a distance multiplier of the energy exerted by the operator to depress the trigger. The operator as an energy source is not part of the apparatus claimed in Claim 32.

Moreover, Haller '975 does not disclose or suggest "a detachable electrode subassembly comprising a plurality of penetrating electrodes operatively connected to a second controlled source of energy sufficient to deploy the electrodes to a predetermined depth within the patient, which detachable subassembly is detachable relative to the orifice through which the agent is administered." Hofmann '525 does not cure these deficiencies. Applicants assert that cited reference Hofmann '525 is silent with regard to disclosing or suggesting at least the claimed elements of "a first controlled source of energy sufficient to transfer a predetermined amount of the therapeutic agent from said reservoir through said orifice to the predetermined site within the tissue of the patient, [and] a detachable electrode subassembly comprising a plurality of penetrating electrodes operatively connected to a second controlled source of energy sufficient to deploy the

electrodes to a predetermined depth within the patient, which detachable subassembly is detachable relative to the orifice through which the agent is administered” as presently claimed in Claim 32.

Applicants assert that Haller ‘975 in view of Hofmann ‘525 do not do not, either alone or in combination, disclose or suggest all of the elements of the claimed apparatus for the delivery of a therapeutic agent recited in Claim 32. Withdrawal of the rejection of Claim 32 on this basis is respectfully requested.

**Obviousness-Type Double Patenting**

In the Office Action dated July 22, 2010, the Examiner has rejected claims 18-21 and 31-39 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of USPN 6,912,417.

To the extent that the Examiner may provisionally reject claims 18-21 and 31-39 over claims 1-20 of USPN 6,912,417, Applicants requests that such rejection be held in abeyance and Applicants will then consider submitting a terminal disclaimer or additional arguments if appropriate.

### **CONCLUSION**

In view of the remarks and amendments submitted herein, Applicants believe that the Application is in condition for allowance and such action is earnestly solicited.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (858) 350-2215.

Respectfully submitted,

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Dated: December 6, 2010

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